WHAT IS CLAIMED IS:

1. A communication interface for interfacing an appliance with a power line carrier communication system, the communication interface comprising:

at least one power line connection for coupling said communication interface to a power line;

at least one appliance communication connection for coupling said communication interface to an appliance; and

processing circuitry for receiving a power line carrier transmission and translating the power line carrier transmission between a power line carrier communication protocol and an appliance communication protocol.

2. The communication interface of claim 1, wherein the processing circuitry comprises a signal processor for receiving the power line carrier transmission and a communication processor for translating to the appliance communication protocol.

3. The communication interface of claim 1 wherein said appliance communication is a serial bus connection.

4. The communication interface of claim 1 wherein said appliance communication connection comprises a bidirectional appliance communication connection.

5. The communication interface of claim 1 wherein said power line connection comprises a bidirectional power line carrier connection.

6. The communication interface of claim 1 wherein said appliance communication connection comprises a signal line and a signal ground line.

7. The communication interface of claim 1 further comprising a message buffer for storing a plurality of power line carrier transmissions.

8. The communication interface of claim 1 wherein said processing circuit further comprises a general purpose universal asynchronous receiver transmitter (UART).

9. The communication interface of claim 1 wherein said power line connection comprises at least one of a 120V or 240V power line connection.

10. A method of communicating data between an appliance and a power line carrier, comprising:

interfacing with a power line carrier;

interfacing with an appliance;

receiving a power line carrier transmission over the power line carrier; and

translating the power line carrier transmission between a power line carrier communication protocol and an appliance communication protocol.

11. The method of claim 10 wherein said step of interfacing with an appliance comprises serially interfacing.

12. The method of claim 10 wherein said step of interfacing with an appliance comprises bidirectionally interfacing.

13. The method of claim 12 wherein said step of interfacing with a power line carrier comprises bidirectionally interfacing.

14. The method of claim 10 further comprising buffering a plurality of power line carrier transmissions.

15. The method of claim 10 wherein interfacing with a power line carrier comprises interfacing with at least one of a 120V and 240V AC power line carrier.

16. A power line diagnostic module comprising:

a power line carrier interface for communicating over a power line;

a power line measurement connection coupled to the power line;

a measurement controller for diagnosing the power line and communicating measurement results over the power line carrier interface.

17. The power line diagnostic module of claim 16, wherein the measurement controller is operative to diagnose at least one of frequency, voltage, and average time voltage of the power line.

18. The method of claim 16 wherein the measurement controller is operative to diagnose ground faults of the power line.

19. The method of claim 16 wherein the measurement controller is operative to diagnose power failures.

20. The method of claim 16 wherein the measurement controller is operative to diagnose voltage sag on the power line.